United States
Environmental Protection
Agency

Office of Public Affairs
Region 5
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

Illinois, Indiana,
Michigan, Minnesota,
Ohio, Wisconsin

Fact Sheet
Valleycrest Landfill Site

Dayton, Ohio

Introduction

The fact sheet provides information about the United States Environment Protection Agency (U.S. EPA) removal action taking place at the Valleycrest Landfill Site (Valleycrest) also known as the North Sanitary Landfill Site. The 102 acre site is located at 200 Valleycrest Drive in Dayton, Montgomery County, Ohio. The Valleycrest site is situated in mixed residential/industrial area within the northeast portion of Dayton, Ohio. The Valleycrest site is split into two sections by Valleycrest Drive. It is located between and in close proximity to the City of Dayton's two major municipal well fields. The aquifer, known as the Great Miami Buried Valley Aquifer, is federally designated sole-source aquifer and provides drinking water for approximately 487,000 people in the Greater Dayton Area.

In July, 1998, the Potentially Responsible Parties (PRP) under Administrative Order by Consent with U.S. EPA began the Drum Removal Action for the Valleycrest Landfill site. The cleanup consisted of removing contaminated drums, and soil from Disposal Area 5 (west of Valleycrest Drive), and a gas abatement system.

Opportunities for Public Involvement

Public Meeting

U.S. EPA will sponsor a public meeting to discuss activities at the Valleycrest site. The public meeting is scheduled for:

Date:
Thursday, September 16, 1999

Time:
7pm

Place:
Stebbins High School
1900 Harshman Road
Riverside, Ohio

Site Background

U.S. EPA began investigating the Valleycrest site in 1986. As part of the U.S. EPA investigation, 21 monitoring wells were installed in the sand and gravel aquifer beneath the site. Analysis of groundwater and soil samples collected by U.S. EPA revealed elevated levels of volatile organic compounds (VOCs), heavy metals, and polychlorinated biphenyls (PCBs).

U.S. EPA placed the Valleycrest site on the National Priorities List (NPL) in May of 1994. In January of 1995, Ohio EPA (OEPA) and several potentially responsible parties (PRPs), entered into an Administrative Order by Consent (AOC) to perform a Remedial Investigation/Feasibility Study (RI/FS) in 1996.

In September of 1996, an underground fire was discovered within Disposal Area 1 of the Valleycrest site, which was known to contain drummed industrial wastes. In accordance with the emergency clause of the AOC, PRP contractors removed approximately 100 partially buried drums associated with the underground fire. During the fire migration drum removal activities in November 1997, additional subsurface drums were documented, but not removed.

Site Assessment

In January 14, 1998, OEPA requested U.S. EPA Region 5's assistance in conducting a time-critical removal action at the Valleycrest site to further identify the areas of drum disposal (Disposal Areas 1 and 5), to address those areas by removing the drums and other contaminated material and gas abatement system, as appropriate.

Summary of Site Risk

The main threats to human health at the Valleycrest site include the contamination of the ground water and aquifer in close proximity to the site and the migration of gases (methane and VOCs) from the landfill to adjacent homes and building.

While results from past air samples collected by the U.S. EPA at the Valleycrest site and perimeter areas have indicated elevated levels of methane, air samples collected from 19 homes and businesses adjacent to the site showed no unsafe levels of methane or other contaminants. A network of gas-monitoring probes located both on site and on adjacent properties are checked weekly to ensure that conditions do not change.

Within the site, hazardous materials are present in soil and in drums. However, daily air monitoring soil sampling at the perimeter of the site reveal no unsafe levels of VOC's or other contaminants. The gas abatement system which monitors and controls the release of methane gas, has been working properly. Monitoring of the perimeter of the site will continue until the removal action has been completed.

Recent samples of ground water have been shown that elevated levels of VOC's are present in the ground water beneath the drums. Samples have been taken from several well water users living northwest of the site, to determine the safety of their drinking water.

Removal Action

On June 1998, installation work began on landfill gas management system to intercept migrating landfill gases at the perimeter of the Valleycrest site. The gas monitoring includes routine monitoring of all site perimeters and where necessary, off-site structures which could be impacted by the off-site migration of landfill gases.

In July 1998, removal activities began at the Valleycrest site. To date approximately 3,500 drums containing solids and liquids, have been excavated and staged for disposal at an off-site EPA approved disposal facility. Many of the drums have been found crushed or in several pieces. Recent drum sampling revealed that the drums removed contained elevated levels of VOC's, specifically Trichloroethene (TCE), metals and PCB's.

So far, 25% of the Disposal Area 5 has been excavated. It is estimated that Area 5 will be completed in 2 years with close to 20,000 to 26,000 drums excavated.

Along with the excavation of drums, approximately 10,000 cubic yards of contaminated soil and debris has been staged for off-site disposal or treatment.

The Next Steps

The drum Removal Action and gas abatement system monitoring will continue at the Valleycrest site. Safety precautions such as air monitoring, gas abatement system and "Shelter In Place" procedures have all been established to ensure the safety of residents and site workers. Updates to the community, by way of fact sheets and public meetings will be given periodically and at the request of the community. In addition, a site contingency plan has been set up to alert local authorities in the event of an emergency situation at the site.

The safety measures established by the U.S. EPA and Ohio EPA in the unlikely event that an emergency situation develops, are listed below. The "Shelter In Place" procedures, developed in consultation with local authorities, should be followed immediately if you hear the signal from the air powered horn located at the Valleycrest site. When the horn is activated residents will hear a continuous three second air horn blast repeating every thirty seconds. If such a situation arises, residents should tune into WHIO-TV (Channel 7) and WHIO-AM (1290) for instructions and information from the Dayton Fire Department. We suggest that you place this page in a visible location in your home or business until the cleanup is complete.

- Bring all family members and pets inside, then close all doors and windows.
- Listen to the above radio and television stations for information. Follow instructions given by local officials.
- Turn off all heating, cooling, and ventilation systems. This includes attic and window fans. Close dampers in fireplaces.
- Do not leave your shelter area until local officials have given an "all clear" signal via personal contact or radio and television.

After the "All Clear" signal is given, open doors and windows to ventilate.

Glossary

Administrative Order by Consent (AOC) is an agreement signed by U.S. EPA and an individual, business, or other through which the violator agrees to pay for correction of violations, take the required corrective or cleanup actions, or other action from an activity. It describes the action to be taken, may be subject to a comment period, applies to civil actions, and is forceable in court.

Methane is a colorless, nonpoisonous, flammable gas created by anaerobic decomposition of organic compounds. It is a major component of natural gas used in the home.

Polychlorinated biphenyls (PCBs) are a family of organic (carbon-containing) compounds. PCBs are extremely permanent in the environment; they do not break down into less harmful chemicals over a long period of time. PCBs may enter the food chain and be consumed by humans. If ingested, they are stored in the fatty tissues of animals and human's and are extracted with normal body waste. These compounds have no smell or taste and exist as either oily liquids or solids. Health effects that may result from exposure to PCBs include skin irritations (rashes and acne) and irritation to the nose and throat. Long-term exposure to PCBs can cause liver damage and has been shown to cause cancer in laboratory animals.

Potentially Responsible Party (PRP) is any individual or company (including owners, operators, transporters or generators that has been identified as being potentially responsible for or contributing to a spill or other contamination at a Superfund site. Whenever possible, through administrative and legal action, U.S. EPA requires PRPs to clean up hazardous sites that have been contaminated.

Trichloroethene (TCE) is a chemical which is used as a solvent to remove oils and grease from metal products. TCE is colorless liquid with an odor similar to ether, and is a manufactured substance which does not occur naturally in the environment. Long-term exposure to this family of chemicals is suspected of causing cancer, as well as problems of the liver and weakening of the immune system.

Volatile organic compounds (VOCs) are a type of organic compound that tend to change from a liquid to a gas at low temperatures when exposed to air. As a result of this tendency, VOCs disappear more rapidly from surface water than from ground water. Since ground water does not come into contact with air, VOCs are not easily released and can be remain in ground water that is being used for drinking water, posing a threat to human health. Some VOCs are believed to cause cancer in humans.

Aerial view of Disposal Area 5 removal action.

Disposal Area 5 excavating and overpacking drums.

Disposal Area 5 soil and debris excavation.

Disposal Area 5 soil and debris sampling.

Additional Information

For additional information about the site you may contact the following representatives:

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Other U.S. EPA information is available for review in the site Information Repository at:

Burkhardt Avenue Public Library
4680 Burkhardt Avenue
Dayton, Ohio 45431

http://www

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